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ABSTRACT

In late July of 1972, a consortium of five organizations conducted a conference on the eighth Higher Education General Information Survey (HEGIS) under the sponsorship of the National Center for Educational Statistics in the Office of Education. The conference had two very broad areas of concern: (1) to consider ways in which HEGIS data may be made available to the higher education community in a more timely fashion than is now the case, and (2) to consider ways in which the community may provide advice to NCES in a regular, ongoing, and informed manner. The recommendations of the conference suggest: (1) That NCES devote substantial resources and efforts to the continuation and expansion of projects to define and describe the postsecondary education universe and include all relevant sectors of that universe in its ongoing data collection activities. (2) That NCES establish a procedure whereby institutions wishing to restrict data dissemination must make a specific, written request. (3) That the planning commission for the HEGIS VIII Conference take positive and substantive steps to encourage the removal of data restrictions by those institutions that currently impose them. Following the recommendations, emphasis is placed on a background for HEGIS in general and a presentation of specific problems and questions considered by the participants. (MJM)

ED 092191

FINAL REPORT
of

EIGHTH ANNUAL CONFERENCE ON HIGHER EDUCATION GENERAL INFORMATION SURVEY (HEGIS)

CONDUCTED BY:

American Council on Education

Center for Research and Development in Higher Education at Berkeley

Education Commission of the States

National Center for Higher Education Management Systems at WICHE

State Higher Education Executive Officers Association

UNDER CONTRACT WITH:

Higher Education Surveys Branch
National Center for Educational Statistics
U. S. Office of Education

JULY 20-21, 1972

WASHINGTON, D. C.

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SECTION ONE

Summary and Recommendations

SUMMARY

In late July of 1972, a consortium of five organizations conducted a conference on the eighth Higher Education General Information Survey (HEGIS) under the sponsorship of the National Center for Educational Statistics (NCES) in the Office of Education. This conference, which has been held annually for the last several years, is one mechanism by which NCES seeks the advice of data providers and data users prior to its collection of information from the nation's accredited higher education institutions.

The five consortium organizations were the American Council on Education (ACE), the Center for Research and Development in Higher Education at Berkeley (CRDHE), the Education Commission of the States (ECS), the National Center for Higher Education Management Systems (NCHEMS) at WICHE, and the State Higher Education Executive Officers Association (SHEEO). The Planning Commission for the conference consisted of one representative from each of these and two representatives of the National Center for Educational Statistics.* Members of the Research and Development unit at NCHEMS served as staff for the conference. Some 35 individuals participated, representing a wide range of higher education associations, state agencies, institutions, systems, and legislative offices.

The conference had two very broad areas of concern: (1) to consider ways in which HEGIS data may be made available to the higher education community in a more timely fashion than is now the case, and (2) to consider ways in which the community may provide advice to NCES in a regular, ongoing, and informed manner.

The recommendations of the HEGIS VIII Conference are presented below. Section Two of the report gives a background for HEGIS in general and for this conference in particular, and Section Three is a presentation of specific problems and questions considered by the participants.

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*Planning Commission members were: Alexander Astin (ACE), Theodore Drews (NCES), Dorothy Gilford (NCES), Lyman Glenny (CRDHE), Ben Lawrence (NCHEMS), Robert Mautz (SHEEO), and Richard Millard (ECS).

RECOMMENDATIONS OF THE HEGIS VIII CONFERENCE

I. Priorities for Data Collection in HEGIS VIII

The timely availability of HEGIS data was the major concern of the conference. Participants agreed that if the data are to be useful to the higher education community--including federal and state agencies, institutions, and associations--they must be published more quickly than is now the case. It was also felt that for two types of data in particular--opening fall enrollment and average faculty salaries--very early release of minimally edited reports was critical.

*In order to provide the National Center for Educational Statistics with advice from a wide representation of the higher education community, the conference recommended the following priorities for the processing and publication of HEGIS data:**

Priority Group One (in the order listed):

1. *Institutional Characteristics/Higher Education Directory*
2. *Opening Fall Enrollment - early release report***
3. *Opening Fall Enrollment - detailed report*
4. *Financial Characteristics of Institutions of Higher Education*
5. *Average Faculty Salaries - early release report***

Priority Group Two (order not specified):

6. *Earned Degrees*
7. *Students Enrolled for Advanced Degrees*
8. *Characteristics of Employees*
9. *Higher Education Facilities*

Priority Group Three:

10. *Residence and Migration of College Students*

**It should be noted that this list represents only the HEGIS VIII Conference input to NCES regarding priorities for the survey. Other opinions, such as those of the Federal Interagency Committee on Education, must also be considered by NCES in the development of a final priority list for HEGIS VIII.*

***At the time of publication of this report, major progress had been made on early release of data from HEGIS VII (i.e., the 1972-73 survey). An early release report of opening fall enrollment for 1972 was published by NCES in early December of 1972. An early report on average faculty salaries for 1972-73 is expected in early February of 1973.*

II. Extension of the HEGIS Survey to All Relevant Sectors of Postsecondary Education

Participants in the HEGIS VIII Conference expressed great concern over the fact that HEGIS, as it is now conducted, is effectively limited to accredited institutions offering at least a two-year program of college level studies in residence. While it was agreed that such institutions provide a major portion of post-secondary education activities, it was felt that they are increasingly less representative of the variety and complexity of postsecondary education in the United States. The current efforts of NCES in the areas of adult and continuing education and vocational education may serve as the basis for providing important information about all of postsecondary education.

The conference recommended that NCES devote substantial resources and efforts to the continuation and expansion of projects to define and describe the postsecondary education universe and include all relevant sectors of that universe in its ongoing data collection activities.

III. Restrictions on the Dissemination of General Financial and Average Faculty Salary Data Collected through HEGIS

There was wide support among conference participants for the full reporting of general financial data and average faculty salary data by institutions of postsecondary education. It was recognized, however, that many institutions impose restrictions which prevent the publication of these data in NCES reports. These restrictions result in published data which are less meaningful and less useful for the postsecondary education community as a whole.

Participants also felt that with the growing trend toward full disclosure of institutional data, many institutions would respond favorably to a request that they reassess their current restrictions of financial and salary data.

The conference recommended:

1. *That NCES establish a procedure whereby institutions wishing to restrict data dissemination must make a specific written request.*

2. *That the Planning Commission for the HEGIS VIII Conference take positive and substantive steps to encourage the removal of data restrictions by those institutions that currently impose them.*

IV. Coordination and Service Functions of the National Center for Educational Statistics

Given the historical role of NCES as the major agency for the collection and dissemination of national data on education, conference participants felt it appropriate for NCES to take leadership in guiding the information gathering activities of other organizations and agencies involved in the postsecondary education enterprise. Coordination of these activities should include attempts to: (1) reduce the number of data requests on institutions and (2) establish guidelines for the standard use of forms and the design of analytic procedures and reporting formats which will increase the extent to which data may be interrelated and interpreted.

It was also considered appropriate that NCES serve a clearinghouse function by establishing a data repository for postsecondary education statistics collected on a national, regional, or statewide level.

The conference recommended:

1. *That NCES actively seek to coordinate the information collection and reporting activities of other organizations and agencies involved in the postsecondary education enterprise.*

2. *That NCES expand and refine its capability as a repository for postsecondary education data collected by others.*

3. *In the event that such efforts cannot be undertaken with the resources currently available to NCES, that the HEGIS VIII Planning Commission urge that the necessary additional funds be provided for these purposes.*

V. Advisory Board on Postsecondary Education Statistics

A proposal for the establishment of an Advisory Board on Postsecondary Education Statistics was presented to the conference and generally endorsed by the participants. It was felt, however, that the conference provided insufficient time for the formulation of specific recommendations regarding the composition and responsibilities of the board. That responsibility was given to an ad hoc committee (composed of the Conference Planning Commission and five additional members from the postsecondary education community) which would meet at some time after the conference.*

The conference recommended:

1. *That an Advisory Board on Postsecondary Education Statistics be established (appointed by the Commissioner of Education and advisory to the Assistant Commissioner for Educational Statistics) to present to NCES, in an organized and continuing way, the recommendations of the postsecondary education community regarding the collection and analysis of data.*

2. *That guidelines for the composition of the Advisory Board should include the following considerations:*

   a. *Representation of both technical and policy-oriented user groups from a wide range of postsecondary education organizations.*

   b. *A supporting advisory structure which would allow the board to call on task forces for technical assistance.*

   c. *A continuing commitment of staff support for the board.*

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*In late fall of 1972, the Conference Planning Commission was reconstituted as an ad hoc committee to continue work along the lines outlined by the conference. With the addition of members from sectors of postsecondary education not previously represented, the committee now includes members from:

The American Council on Education
The American Vocational Association
The Center for Research and Development in Higher Education at Berkeley
The Education Commission of the States
The staff of the Committee on Education and Labor, U. S. House of Representatives
The National Association for Public Continuing and Adult Education
The National Association of State Budget Officers
The National Association of Trade and Technical Schools
The National Center for Educational Statistics
The National Center for Higher Education Management Systems
The National Council of State Directors of Community/Junior Colleges
The State Higher Education Executive Officers Association

SECTION TWO

Background of the HEGIS VIII Conference

I
THE HISTORICAL BACKGROUND OF HEGIS

A major responsibility of the Office of Education, since its establishment, has been the collection of information on the state of American education. Throughout its history, USOE has engaged in an increasing effort to gather data on higher education--including enrollments, student characteristics, earned degrees, faculty characteristics, sources of institutional revenues, and value of physical plant.

It was not until the mid-1960s, however, with the beginning of substantial federal assistance to higher education, that the amount of data collected began a rapid increase. As the need for different kinds of data by different units within OE (and elsewhere) became greater, it became clearly desirable to create a mechanism for coordinating the efforts of federal data collectors and easing the burden on the data suppliers. The National Center for Educational Statistics (NCES) and its Higher Education General Information Survey (HEGIS) were created largely to provide that mechanism.

Prior to the institution of the HEGIS survey in 1966, it had been OE's practice to send out its various general data collection forms at different times throughout the year. HEGIS departed from this practice in two ways: the several forms were combined into a single package with a specific due date for each form, and the package was mailed to institutions before the beginning of the academic fiscal year. This new practice, it was hoped, would allow the institutions to assess their overall federal data reporting requirements in a manner that would permit better scheduling of the manpower they had available for the task. At the same time, since the institutions knew in advance the kinds of data they would be asked to furnish, they could plan for the orderly collection of those data as they became available--rather than trying to collect them, after the fact, later in the year.

The HEGIS package is now mailed in the spring of each year to the approximately 2,600 accredited colleges and universities throughout the country. The content of the package varies somewhat from year to year, since some of the questionnaires included are administered annually and some at other intervals. The current survey (HEGIS VII) consists of the following forms:

Title	Due Date
Institutional Characteristics of Colleges and Universities, 1972-73	July 15, 1972
Degrees and Other Formal Awards Conferred between July 1, 1971, and June 30, 1972	August 15, 1972
Financial Statistics of Institutions of Higher Education for Fiscal Year Ending 1972	October 31, 1972

Opening Fall Enrollment in Higher Education, 1972	November 1, 1972
Residence and Migration of College Students, Fall 1972	November 15, 1972
Students Enrolled for Advanced Degrees, Fall 1972	November 30, 1972
Employees in Institutions of Higher Education, 1972-73	November 1, 1972

Two other forms which have been included quite regularly in the HEGIS package are a survey of college and university libraries and an inventory of college and university physical facilities.

Following their collection from the institutions, HEGIS data are edited by the NCES staff and reported, usually in aggregated form, in several annual publications of the center. These publications receive wide distribution throughout the education community.

II
THE ROLE OF THE HEGIS CONFERENCE

One important factor in determining the composition of the HEGIS package from year to year is an annual planning conference sponsored by NCES. The conferences are attended by representatives of higher education institutions, professional associations, state commissions and coordinating boards, and federal agencies. These meetings have provided a forum for discussing both the requirements of data users (at the institutional, state, and federal levels) and the reporting capabilities of the data providers.

A. The Major Outcomes of the HEGIS VII Conference

Last year's meeting--that which discussed and made recommendations for the current survey (HEGIS VII)--was a significant departure from previous HEGIS conferences. The primary focus of the HEGIS VII meeting was on issues expected to have the greatest impact on American higher education during the 1970s. Working from discussion of the issues as a background, the conference participants (over 100 were in attendance) attempted to identify the kinds of information required to make informed decisions in matters related to these issues.

The reports of the nine working groups of the conference identified eight items of overall importance for the future of HEGIS.*

1. The need for timely publication of HEGIS data.
2. The need for additional information concerning students.
3. The need to survey institutions of postsecondary education rather than just institutions of higher education.
4. The need to define the role of state agencies in the collection of information from institutions.
5. The need for more extensive data analysis (by NCES) for purposes of both determining which information should be collected and applying the data to the solution of problems after collection.
6. The need to convince institutions to remove confidentiality restrictions from data submitted.
7. The need for obtaining information to support decisions regarding modes of instruction.
8. The need to coordinate the data collection efforts of state and federal agencies and certain professional associations.

*It is interesting to note that although the focus of the meeting was on the kinds of information needed to address issues in higher education, five of the eight major concerns identified by the participants deal with the processes of data collection and reporting.

A summary of the discussions concerning these major items is contained in the final report of the HEGIS VII Conference, along with the conference recommendations for the HEGIS survey in general and the HEGIS VII instruments in particular.

Of the eight items, the first--timeliness in the publication of HEGIS data--was repeatedly identified as the most important concern for HEGIS.

B. Objectives of the HEGIS VIII Conference

This year, for the second time, the HEGIS planning conference, sponsored by the National Center for Educational Statistics (NCES), was conducted by a consortium of five organizations: The American Council on Education (ACE), The Center for Research and Development in Higher Education (CRDHE), The Education Commission of the States (ECS), The National Center for Higher Education Management Systems (NCHEMS), and The State Higher Education Executive Officers Association (SHEEO). Representatives of these organizations, plus representatives of NCES, formed the HEGIS VIII Planning Commission*, which met in May to consider objectives for the 1972 conference.

The major conference objectives stated in the consortium's proposal were:

- -To consider the design requirements and analytic requirements of higher education institutions, state coordinating agencies, and organizations relating to information needs, and to develop priorities regarding the kinds of data needed and their frequency and timing requirements.
- -To consider procedures, including processes of improved record keeping at the institution, for the purpose of achieving broad and accurate institutional and state agency reports to the HEGIS basic core data survey.
- -To develop recommendations concerning categories of preliminary data that should be released by specific dates for specified uses to be determined by the Conference.

In addition to these, the planning commission agreed that it was necessary to consider the role of the postsecondary education community in the data collection efforts of NCES. A second objective of the conference was therefore to recommend:

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*Planning Commission members were: Alexander Astin (ACE), Theodore Drews (NCES), Dorothy Gilford (NCES), Lyman Glenny (CRDHE), Ben Lawrence (NCHEMS), Robert Mautz (SHEEO), and Richard Millard (ECS).

- Procedures for obtaining institutional commitment to the timely and full reporting of their data to NCES.
- Procedures for establishing a mechanism through which the post-secondary education community may make its information needs known to NCES on a regular and ongoing basis.

Finally, in addition to concerns which center around the timely collection and reporting of HEGIS data, there was felt to be a continuing need to discuss some of the broad issues in postsecondary education and to examine information requirements for decision making in those areas. A third objective of the conference was therefore to address important issues in the context of:

- Assuring that the basic HEGIS data provide the necessary background of institutionally derived information for decision making.
- Identifying kinds of information which may optimally be collected through mechanisms other than HEGIS.

III
THE SETTING FOR THE HEGIS VIII CONFERENCE

A. Issues and Information Needs in Higher Education

The goals of higher education, in very broad terms, may be stated as follows:

- -To provide the educated citizenry necessary to the maintenance of a democratic society.
- -To provide the trained manpower necessary to the functions of business, industry, government, and public service.
- -To add to the body of knowledge upon which a highly scientific and technological society is based.
- -To answer the needs of individuals by providing experiences which will increase their knowledge, their social and cultural awareness, and the quality of life in general.

Few individuals would quarrel very seriously with this statement. But once the goals have been stated and a course of action embarked on to pursue them, even fewer individuals would be willing to sit back and observe the process without question or comment. On the contrary, such a hands-off policy seems almost incompatible with the American spirit, whether the process observed be that of a school, a government body, or an automobile manufacturer.

In the case of higher education, this natural tendency to question the effectiveness of the process in achieving its goals is increasingly combined with a challenge to the efficiency of the process. As higher education has become more and more a public enterprise in terms of its financial support, it has become increasingly susceptible to demands for accountability in its use of public monies.

Several very basic questions are being asked:

- -Whom does higher education serve?
- -Through what processes?
- -What do the processes cost?
- -What are their outcomes?

At present there is a serious lack of carefully and consistently gathered information needed to answer these important questions. We know some things about students in higher education institutions, somewhat less about the processes through which they are educated, and somewhat more about the cost of administering those processes; but we know virtually nothing of the outcomes of higher education.

The absence of "good" information about higher education does not mean, however, that there have not been attempts to evaluate its current state in some sense. And although there is growing realization that what we are actually concerned with is <u>postsecondary</u> education, nonetheless

it is traditional higher education--the colleges and universities--that has borne the brunt of public criticism. There is considerable opinion, for example, that some individuals--ethnic minorities and those with low incomes especially--are consistently not served by traditional higher education institutions. There is considerable opinion that these institutions are highly structured, routine-oriented, inflexible enterprises unable to respond to the needs of students they do serve. There is growing concern that outcomes currently measured--that is, almost exclusively, degrees granted--are neither indicative of knowledge gained nor predictive of job or career patterns for their recipients. Finally, at a time when postsecondary education of many kinds is becoming more and more a public endeavor in terms of its financial support, there is increasing demand on and by public officials to make the best possible use of tax monies--with the implication that this is not now the case.

In short, postsecondary education--education beyond high school--has been found wanting--by students, taxpayers, employers, public officials, researchers. And whether this conclusion has been reached from hard data or through intuition, partially informed judgment or individual experience, it is nonetheless sufficiently credible to have become a national concern.

The continuing discussion suggests that there are five major approaches to the improvement of postsecondary education:

- -Providing a variety of educational experiences within the traditional higher education community.
- -Nurturing the kinds of organized learning experience that take place outside traditional higher education and recognizing their legitimacy.
- -Improving the opportunities for each individual to pursue the kind and degree of learning desired.
- -Increasing the effectiveness of educational programs in achieving desired outcomes.
- -Improving the efficiency of educational institutions in utilizing their human, physical, and financial resources.

The Issues

It is from this list--or other very similar lists--that the major issues in postsecondary education have been identified. They may be described as follows:

1. First, it is suggested that what we have traditionally referred to as higher education is no longer the exclusive concern of colleges and universities. The scope of our concern must be broadened to include many kinds of organized teaching and learning experience beyond secondary school. Only in this way may we assess and augment learning opportunities for the majority of Americans beyond high school.

2. Second, it is suggested that postsecondary education should be available to all individuals who want it. Traditionally, higher education has been the domain of affluent white men and women between the ages of

18 and 24. That this is less so today than it was a quarter century ago does not deny the importance of the issue. Poor people and people of ethnic minorities still go to college in very small numbers, and to graduate or professional schools in much smaller numbers (the latter is also true of women). The individual who does not--or cannot--attend college within five years of high school completion very often loses the chance altogether. Finally, the student who drops out of college before completing a degree--whatever the reason for doing so--often finds that reentry to the institution after several years have passed is very difficult.

3. The third issue--diversity of educational offerings--is very closely related to the first two. Geographic diversity is clearly a factor in accessibility to education. And our concern with nontraditional forms of higher education follows from the idea that there is merit in the many kinds of learning that take place outside the "academic" community.

   It is suggested, however, that for postsecondary education there are two separate aspects of the issue of educational diversity: content and process. First, since the health of American society in all its aspects requires a body of citizens with a wide variety of knowledge and skills, it is necessary to provide realistic opportunities for education in a wide range of subject matters. There must be good academic and professional programs--covering all of the disciplines in the HEGIS Taxonomy. There must be good programs in vocational and technical education. There should also be programs in crafts and trades and programs for individuals who seek social and cultural enrichment.*

   Secondly, since those who pursue postsecondary education in any field possess a wide range of interest, ability, motivation, and ambition, the processes through which they achieve their goals should be flexible. Real diversity in education should allow for speeded-up progress and slowed-down progress. It should accommodate dropping in and dropping out. It should provide independent study, CAI, and education by television. And it should offer credit by examination and certification by examination.

4. Efficiency in the conduct of postsecondary education is the fourth issue. As the amount of money for education becomes increasingly limited and the number of institutions competing for it grows, the postsecondary education community becomes more concerned with the efficient use of the resources it has available. New institutions are expensive, and if it is true that many colleges could accommodate more students than they now do, then it may be unwise to build new ones. There are indications of a leveling of enrollments, which may suggest that even more institutions

*This is not to propose that each institution of postsecondary education should try to do everything. In fact, as Newman suggests, if new institutions would stop trying to copy their older sisters in the range of programs and degrees offered, the result would probably be greater overall diversity for the educational consumer.

will soon find themselves operating below capacity. Community colleges are proliferating, but it is not clear that they can offer two years of traditional academic programs as efficiently as many of the four-year colleges. New programs are expensive at any level--but especially the graduate and professional programs that increase an institution's prestige. And, far from contemplating new programs, many institutions are hard pressed to maintain existing programs at their current level of activity.

A wide range of strategies has been adopted by colleges and universities in various stages of financial distress: closing campuses, discontinuing programs, increasing class size, increasing faculty teaching loads, utilizing the physical plant more hours per day and more days per year, cutting student services. It is clear, however, that while management-by-crisis may be tolerable for one or a few institutions, it is not tolerable for postsecondary education as a whole.

It is suggested that any plan for improving postsecondary education must include a careful examination of the financial health of the existing enterprise, a study of the resources needed to implement future programs, and a realistic projection of the resources that will be available for them.

5. Innovation in education is not regarded as a separate issue, but as one which ranges across the previous four, seeking constructive change rather than novelty. Innovative approaches are needed to answer questions like these:
   - What kinds of institution--or noninstitution--are best suited for certain purposes?
   - What programs do we need to teach people the things they need to know?
   - What procedures can we adopt to make education available to a wider range of people?
   - What tools and techniques will enable us to use our resources more efficiently?

6. The most difficult issue to address is also probably the most important: the effectiveness of postsecondary education. It has long been held that the degree is the necessary--and almost automatic--passport for upward mobility. To the world at large, it indicates that its possessor is an educated man or woman. To a potential employer, it identifies an individual with a high level of ability and knowledge. Taken in the aggregate, it shows American society to be the annual recipient of a substantial addition to its pool of trained manpower.

   To a large extent, however, acceptance of the passport is based on faith. It may represent something, but we don't really know <u>what</u>. And even if we do identify the <u>what</u>, we don't really know--for a given individual--that the institution is responsible for producing it. Person A with a degree from College X may be as different as can

be imagined--in terms of knowledge and ability--from Person B with the "same" degree from College Y. Or worse yet, Person A with a degree from College X may be virtually no different--in terms of knowledge and ability--from person A without the degree if he or she had spent the four years doing something besides going to college.

In short, there are two questions involved in the effectiveness issue:
- What affective and cognitive characteristics does an individual possess at the end of his or her formal postsecondary education?
- To what extent are those characteristics representative of value added by the postsecondary education experience?

The second question is by far the more difficult, and it may be some time before we can answer it. But we are able--now--to begin to answer the first, and we must do so if we are to understand the outcomes of postsecondary education.

Information Needs

The body of information needed in postsecondary education falls into five general categories:

1. "Student" characteristics (including nonstudents)
2. "Institutional" characteristics (including noninstitutions)
3. Educational processes
4. Outcomes or value added
5. Efficiency of the postsecondary education enterprise

The lists presented below are broad, but they are certainly not complete. It is suggested, however, that if such information were available about all or most of the postsecondary education activities in the nation, we would know a great deal about where we are and where we want to go, and a good deal about how to get there.

1. Student data
   - Characteristics of students in postsecondary education
     - Age
     - Sex
     - Ethnic background
     - Economic background
     - Geographic origin
     - Employment background
     - Educational background
     - Ability
     - Motivation
     - Attitudes
     - Values
     - Educational major
     - Educational objectives
   - The same information is needed about high school graduates who do not enter institutions of postsecondary education. In addition, we need to know why they did not enter and what they did instead.

- Characteristics of drop-outs, including those listed above plus the reasons for dropping out and where they went after dropping out.

2. Institutional data
   - Identification of the postsecondary education community, including colleges and universities (accredited and nonaccredited), proprietary schools, trade schools, industrial training programs, and the like.
   - Characteristics of educational institutions and organizations
     - Location
     - Age
     - Size
     - Control
     - Admission requirements
     - Price of attendance
     - Student financial aid
     - Courses of study
     - Degrees awarded by course of study and level
     - Predominant teaching mode
     - Type of facilities
     - Faculty (age, sex, degrees earned, field of specialization)
     - Characteristics of student body
     - Community environment

3. Educational processes
   - Information on special programs for underprepared students: Who has them? How are they being evaluated? What is their result?
   - Information on innovative programs and institutions:
     - Nontraditional "campuses"
     - Nontraditional curricula
     - Nontraditional methods of study
       - Independent study
       - Uses of educational technology
       - Accelerated programs
     - Nontraditional methods of certification
       - Placement by examination
       - Credit by examination
       - Degree by examination

4. Outcomes
   - Longitudinal data on level of attainment by course of study, time in program, and student characteristics (above) for completers and noncompleters
   - Affective characteristics by the same variables
   - Career or other goals at time of completion
   - Activity or occupation following completion

5. Efficiency
   - Information on cost of production
     - Student credit hour by discipline and method of instruction
     - Program completion by course of study and level of certification
   - Information on financial health of institutions
     - Revenues by source
     - Expenditures by use
     - Changes in level of expenditure by institutional activity
     - Changes in level of institutional debt
     - Changes in quasi-endowment fund balances
     - Rate of asset liquidation
   - Resource implications of new institutions and programs
   - Anticipated sources of new revenues
     - Private contributions
     - Increased tax base
     - Increased tuition and fees
     - Investment income

B. The Data Collection Environment

A review of the previous section reveals an extreme diversity in the information which could be assembled to shed light on whatever problems and decisions must be faced by those who have some degree of association with postsecondary education. There is no single source for all the necessary or useful data. Many of the required data cannot be obtained through a survey of institutions, regardless of how well that survey is designed and executed. For example, institutional surveys cannot yield information on that portion of the population that does not attend colleges; nor can such surveys yield adequate information about the impacts of the educational experience for individuals with differing abilities, motives, etc. Limitation on the capabilities of institutions to provide critical pieces of the puzzle does not mean, however, that acquisition of the missing pieces is a hopeless task. It means only that other sources must be tapped and other devices used. Perhaps more than anything else it means that a way must be found to organize and use those data which are available.

In all probability there currently exist, somewhere, data on almost all aspects of postsecondary education. Some of these data are gathered by researchers, others by various governmental agencies, and still others by professional associations, industrial organizations, consumer groups, etc. While many data are available, their usefulness is significantly diminished for two reasons. First, most of these data are not generally available--far too few potential users are aware of their existence. Second, the usefulness of most data is magnified when it can be used in conjunction with other types of data (for example, data on numbers of students attending college takes on added meaning when used in conjunction with data on total numbers of potential students). The current proliferation of unrelated data collection efforts has served to minimize the possibilities for joint uses of any data which are collected. This situation is indeed unfortunate--the resources available for gathering information about postsecondary education are not sufficient to allow for waste and unnecessary duplication.

The present state of affairs is not only unfortunate because of loss of effectiveness and the built-in inefficiencies. A by-product has been an increasing frustration on the part of the data providers, especially those who bear the brunt of the load (i.e., the institutions and agencies). In many cases data are provided on a voluntary basis--no immediate penalties are provided for not cooperating (nor are immediately obvious benefits forthcoming as the result of voluntary cooperation). In addition, the provision of data is an expensive and somewhat onerous task. As a result, data providers have been put in a position of investing significant resources in activities from which few direct benefits accrue. Thus, there is a good deal of resistance to any action which increases the costs without appreciably changing the return to the provider. Change and proliferation are both expensive--and both are resisted.

In summary, the HEGIS VIII Conference was held against a backdrop of critical information needs coupled with a growing frustration about the processes through which such needs are met. It was the hope that both need and frustration could be somewhat alleviated in its wake.

SECTION THREE

Problems Considered by the Conference

This section of the report is a presentation of general problem areas considered in the course of the HEGIS VIII Conference. To a large extent, the materials here consist of written discussions and proposals prepared by the conference staff and distributed to participants prior to the meeting itself. Exceptions are parts V and VI, which are summaries of important points made in the course of oral presentations by members of the NCES staff.

The specific conference recommendations which followed the consideration of these matters have been presented in Section One of this report; they are not repeated here.

I
ACHIEVING A COMMUNITY OF INTEREST AND SUPPORT REGARDING POSTSECONDARY EDUCATION DATA

Premise

It is in the best interest of the postsecondary education community to provide that information necessary for the making of informed decisions at the state and federal levels. On the basis of this conviction, steps should be taken to:

a. Obtain the commitment of the postsecondary education community to cooperate with NCES in making available that basic information critical to the decision-making process at state and federal levels.

b. Create a vehicle by which the varying priorities attached to different information requirements by different segments of this community (e.g., the institutional decision maker, the researcher and the state-level planner) can be communicated to NCES and resolved on a continuing basis.

Discussion

Given the current conditions in which postsecondary education is increasingly becoming a public enterprise, there is a growing obligation on the part of the institutions of higher education to make data available to their benefactors. The stance of many institutions historically has been to provide no more information than was absolutely necessary. This stance now generates more suspicion than understanding--the mood being that anyone who will not disclose information must have something to hide.

While there are valid concerns that an increasing availability of information will open the doors to misuse and will be detrimental to the institutions, there is an increasing awareness that the penalties of not providing information may be even more detrimental. The actions of the recent Congress made it quite clear that oratory about the needs of higher education was insufficient--hard facts were needed. In the absence of these hard facts, decisions were postponed until certain of the facts could be obtained.

Against this background it appears quite clear that the postsecondary education community could benefit by a positive strategy of willingly providing the necessary information and of actively cooperating with NCES in its data collection and analysis activities.

While a positive stance with regard to the providing of data to NCES is a critical step, there is another element to active cooperation which is also important. In particular, it is important that the postsecondary education community convey, in an organized and continuing way, their sense of the major issues about which information is needed and their appraisal of those data which, if collected and analyzed, would best illuminate these issues.

At the present time there exist a variety of mechanisms by which NCES solicits assistance from the educational institutions and agencies. These mechanisms, however, should not be viewed as substitutes for a mechanism by which the diverse and ever-changing concerns of the different segments of the community are brought into a single forum, sifted into a priority order, and communicated. The existing vehicles are neither comprehensive of the differing points of view held by those most directly responsible for the educational process nor sufficiently continuous to adequately monitor changing needs. Neither are they designed to resolve any conflicts--they are designed to gather information but not to interpret it. Some arrangement by which these deficiencies can be rectified is both appropriate and warranted.

Proposal

1. It is proposed that a concerted effort be made to obtain a commitment from the postsecondary education community to improve cooperation with NCES in providing that basic core of data determined as being required for policy-level decision making.
2. It is proposed that these data be provided with minimum restrictions as to confidentiality (a specific proposal regarding confidentiality is presented in the following section).
3. It is proposed that, as a minimum, the following activities be undertaken to obtain this commitment:
   a. That the governing boards of the organizations sponsoring the HEGIS Conference be asked to go on record as supporting this position.
   b. That these statements of position be brought to the attention of all participants in the activities of each of these organizations.
   c. That other professional and regional organizations be asked to endorse this position and so inform their constituents.
   d. That arrangements be made to insure that such position statements are covered in the publications directed toward the education community (e.g., in The Chronicle of Higher Education).
   e. That the state governing boards and coordinating councils be asked to urge the institutions within their jurisdictions to cooperate in providing information to NCES.
4. It is proposed that an Advisory Board be established (and supported by one full-time professional staff member) to present to NCES, in an organized and continuing way, the recommendations of the postsecondary education community regarding the collection and analysis of data. This board would be charged with:
   a. Reviewing the postsecondary education data collection priorities of NCES within the context of the issues identified as being most important by the postsecondary education community. Included would be a review of the relative priorities attached to institutional census surveys and longitudinal and other special studies and recommendations for revisions as deemed necessary.

b. Proposing additions or changes in those activities of NCES which deal with the collection of postsecondary education data.
c. Assessing the effectiveness of the NCES data collection activities in serving the information needs of the various constituencies.
d. Reviewing requests and suggestions concerning the collection of postsecondary education data which arise from within the community and recommending a course of action to the Assistant Commissioner for Educational Statistics.
e. Recommending actions designed to assure coordination of data collection activities within NCES.
f. Recommending actions designed to improve coordination between NCES and other organizations and agencies which collect data about postsecondary education.
g. Developing a strategy for obtaining the cooperation of the education community in furnishing information required for policy-level decision making.
h. Recommending the initiation of feasibility studies and technical studies where deemed necessary.

Further, it is proposed that the board be appointed by the Commissioner of Education and be advisory to the Assistant Commissioner for Educational Statistics. The members of the board should represent the various points of view within the postsecondary education community without necessarily representing all of the various agencies and organizations within that community. Terms of appointment and organizational guidelines should be established by the Commissioner of Education.

Finally, it is proposed that, until such time as the Advisory Board is formally established, the Planning Commission for the HEGIS Conference serve in this capacity.

II
CONFIDENTIALITY OF FINANCIAL DATA

Background

A continuing problem in the analysis of financial information collected through HEGIS arises from restrictions placed by institutions on the dissemination of data they report. Three categories of information are affected by these restrictions:

- Salaries of selected administrators (from the employee schedule)
- Salary levels and fringe benefits of full-time faculty (from the employee schedule)
- Current funds revenues and expenditures (from the financial statistics schedule)

To learn the institutions' wishes regarding dissemination of financial information, NCES distributed, prior to its 1970-71 higher education survey, a form titled "Limitations on Dissemination of Data on Current Revenues and Expenditures and Faculty Salaries." The form offers three alternatives:

- No restriction
- Restriction only on dissemination of data on individual salaries by name and/or position title
- Selective restrictions on dissemination of data on current revenues and expenditures or faculty salaries to certain data users (including the Commissioner of Education, state higher education agencies, and individual researchers)

Although there is no legal requirement that NCES offer a confidentiality option on any part of HEGIS, once the option is offered by NCES and accepted by the institution, there are criminal penalties for failure to comply with the institution's request.

According to the report of the Association for Institutional Research (AIR) ad hoc Committee on Access to Federal Data,

> In December, 1970. . . . NCES reported that 51% of the institutions returning the form did not request any limitation on release of the financial data . . . About one-third . . . requested confidentiality only with respect to individual salaries identified by name or position. The remaining institutions requested restrictions on dissemination of revenue and expenditure data to various governmental and/or non-governmental groups.

Participants in the HEGIS VII Conference, held in June of 1971, indicated that although the proportion of institutions electing the confidentiality option is relatively small, many of the institutions have large enrollments. This suggests that certain analytical efforts involving financial data--e.g., faculty compensation and institutional financial health studies--may be seriously hampered.

Proposed Position Statement

Postsecondary education in the United States is a public enterprise requiring mutual trust between educational institutions and society at large. An open stance in all its affairs is thus in the best interest of the postsecondary education community. In particular, as the report of the AIR Committee states: "given the present financial status of institutions of higher education, secrecy on matters of revenue and expenditures and faculty salary levels seems counter-productive."

That this is true in the case of public institutions seems obvious. The public in all of its sectors has a clear right to know how its tax monies are spent in the operations of publicly-controlled colleges and universities.

But this is also true for privately-controlled institutions. Most private institutions rely--in at least some degree--on public sources of support for certain of their activities. NCES reports in its Digest of Educational Statistics for 1970 that in 1967-68 fully one-quarter of the current fund revenues (not including student aid grants) of private higher education institutions came from federal, state, and local government sources.

Even an institution whose revenue sources are wholly nongovernmental has public responsibilities. If nothing else, it must continue to attract financial support, and secrecy in its affairs is conducive to distrust on the part of potential contributors.

Pragmatic matters must also be considered. In particular, the newly enacted Education Amendments of 1972 require institutions to make cost information available in order to be eligible for emergency assistance, general institutional aid, and student aid. In the case of emergency assistance, for example, an institution must agree "to conduct a comprehensive cost analysis study of its operation, including income-cost comparisons and cost per credit hour of instruction for each department." [Title I. Section 122.(b)(2)(C)(ii)]

It is recognized that many of the institutions which limit dissemination of salary data for their faculty are motivated, at least in part, by a concern that such data will be adversely used by advocates of faculty collective bargaining. Inasmuch as there is no clear indication that dissemination of summary salary data such as those collected through HEGIS would be detrimental to the postsecondary education community, this concern is not sufficient reason for restriction of faculty salary information.

For these reasons, it is the position of the HEGIS VIII Conference that there is no legitimate justification for institutionally-imposed restrictions on the dissemination of general financial data. Further, the reporting of data on salaries should be limited only to the extent necessary to maintain the privacy of individual administrators, faculty members and other staff in institutions of postsecondary education.

Proposed Recommendations

A. It is recommended that NCES initiate procedures to discontinue use of the form titled "Limitations on Dissemination of Data on Current Revenues and Expenditures and Faculty Salaries" and to substitute the following guidelines on the dissemination of HEGIS financial data:
   1. At the discretion of NCES, current revenues and expenditures data may be reported for individual institutions or for groups of institutions.
   2. At the discretion of NCES, average faculty salary data may be reported for individual institutions or groups of institutions, except in those cases where the salary of a particular faculty member is specifically identified.*
   3. Salaries of selected administrators will be reported in aggregates only; data will not be reported in a manner which allows the identification of salary information for a particular administrator.*

B. It is recommended that the Planning Commission of the HEGIS VIII Conference disseminate the recommendations of this conference regarding confidentiality of financial data to all institutions on the current HEGIS mailing list and solicit institutional support for those recommendations.

C. In the event that no specific conference recommendations are made regarding use of the current confidentiality option, it is recommended that the Planning Commission of the HEGIS VIII Conference:
   1. Study the effects of the current confidentiality option on efforts to analyze financial data in postsecondary education.
   2. Disseminate the results of that study to all participants in the HEGIS VIII Conference.
   3. At the request of NCES, report the results of its activities to the planning conference for HEGIS IX.

*As a general rule, regardless of the kind or level of aggregation used, if only one salary contributes to the information reported in a cell, that cell should be left blank.

III

ACHIEVING TIMELY REPORTING OF HEGIS DATA

As a major part of the planning for the HEGIS VIII Conference, the conference staff prepared a series of background papers and proposals for consideration by the participants. One of these--the most lengthy and the most complex--addressed the issue of HEGIS timeliness through a discussion of the quality and quantity of data collected in the survey. In essence, the paper (Appendix A of this report) constituted a proposal for a basic core of HEGIS data which would have required considerable revision of the existing survey.

Many participants felt that the proposal deserved to be addressed on its merits, but two factors militated against its detailed consideration. First, sufficient conference time was not available for a meaningful discussion of the proposal. Perhaps more important, however, were the practical implications of a substantial revision of HEGIS. The major focus of the conference was on making HEGIS data available in a more timely fashion and in the view of many of the participants a radically changed HEGIS VIII was not consistent with such a goal. Not only would institutions need to be "reeducated" in responding to the survey, but NCES would also be required to undertake major revision of its data processing techniques and procedures. The result, it was felt, would be an even greater delay in data publication.

In light of these considerations, it was decided that the most useful input of the conference would be in the form of a specific list of priorities for the kinds of data to be included in HEGIS VIII. The resulting priority list of the HEGIS VIII Conference appears as Recommendation I in Section One of this report.

IV

OTHER SOURCES OF INFORMATION ABOUT POSTSECONDARY EDUCATION

It has been pointed out in other parts of this report that the HEGIS survey itself cannot answer all the needs--even at the national level--for information on American postsecondary education. This does not imply, however, that the proper role of the National Center for Educational Statistics is limited to administration of the annual institutional survey. There are three major aspects of a wider NCES role:

1. An active role as a collector of postsecondary education information--outside HEGIS--that has implications for national policy decisions.
2. An active role as a coordinator of information collection efforts by other federal and nonfederal agencies and organizations.
3. A passive role as a repository of available information--from whatever sources--that is relevant to postsecondary education.

Proposal

1. The importance of certain types of postsecondary education information which cannot be collected through the HEGIS mechanism has been well established. Some of this information is of such a broad scope that NCES seems clearly to be the appropriate agency for its collection. NCES currently has underway some efforts in this direction, but they must be expanded if they are to provide the kind of information needed for educational planning and evaluation.

   It is recommended that NCES devote increased resources and efforts to the initiation and continuation of projects to:

   a. Define and describe the postsecondary education universe, and include all sectors of that universe in its ongoing data collection activities.
   b. Collect--through longitudinal investigations--demographic, affective, and cognitive data on students and nonstudents, including their educational, social, and career patterns.
   c. Conduct studies of currently measurable outcomes of postsecondary education for a wide range of students in various types of postsecondary education institutions.

2. Given its historical role as the major agency for the collection and dissemination of national data on education, it is appropriate that NCES take leadership in guiding the information gathering activities of other organizations and agencies.

   It is recommended that funds be provided whereby NCES may actively seek to coordinate the information collection and reporting activities of other organizations and agencies involved in the postsecondary education enterprise. This effort should begin with coordination among national level bodies (both governmental and nongovernmental) and should include substantive attempts to:

   a. Reduce the number of data requests on institutions.
   b. Establish guidelines for the standard use of forms and the design of analytic procedures and reporting formats which will increase the extent to which data may be interrelated and interpreted.

3. For the reasons cited in the above item, it is also appropriate that NCES serve a clearinghouse function for statistics relating to postsecondary education. It is not now able to do so in an effective fashion.

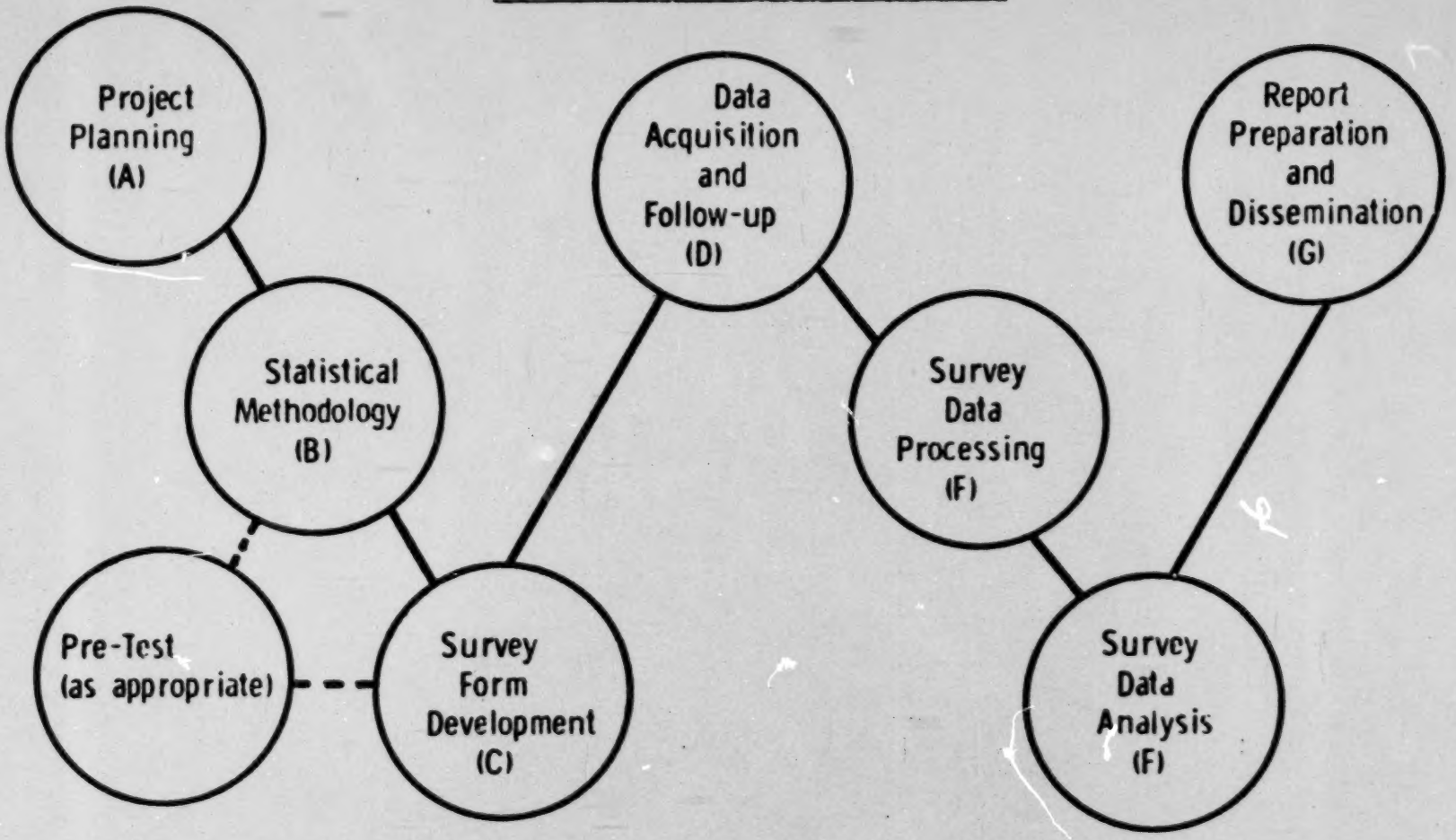
   It is recommended that funds be provided whereby NCES may establish a data repository for postsecondary education. This repository should include (but not necessarily be limited to):

   a. A directory of organizations and agencies whose major functions include the collection of postsecondary education data on a national, regional, or statewide level.
   b. Summary descriptions of the data collection activities of those organizations and agencies.

   It is further recommended that such repository information be made available, at cost, to data users in postsecondary education.

FIGURE 1

HEGIS SURVEY PROJECT ACTIVITIES



V

PROCESSING HEGIS DATA

Mrs. Dorothy M. Gilford, Assistant Commissioner for Educational Statistics, made a detailed presentation showing the steps involved in the development of HEGIS schedules, the collection of data, and the processing and publication of information by NCES. The major activities of the HEGIS survey projects are shown in Figure 1, and the steps required for each activity are listed below.

A. Project Planning

1. Prepare statement of objectives for HEGIS survey schedules.
2. Conduct HEGIS planning conference.
3. Conduct higher education advisory committee meetings.
4. Conduct FICE* committee meetings.
5. Request approval of HEGIS projects from OAC/NCES.*
6. Approval of HEGIS projects by OAC/NCES.
7. Approval of HEGIS projects by OMB/OSP.*

B. Statistical Methodology

1. Develop universe/sample plan of institutions of higher education for each schedule.
2. Prepare institutional listings for processing survey schedules (Survey Control File).
3. Prepare specifications for nonresponse procedures.
4. Prepare specifications for reliability and validity procedures.

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*Abbreviations:

FICE - Federal Interagency Committee on Education

OAC/NCES - Office of the Assistant Commissioner, National Center for Educational Statistics

OMB - Office of Management and Budget

OSP - Office of Survey Planning

C. Survey Form Development

1. Prepare HEGIS package for clearance review.
2. OE clearance review and approval.
3. OMB clearance review and approval.
4. Final survey schedules printed by GPO.*

D. Data Acquisition and Follow Up

1. Complete mail-out, receipt control, and follow-up procedures for HEGIS survey schedules.
2. Mail-out of HEGIS package (state coordinators).
3. Due date for response by institutions of higher education.
4. Follow-up for schedule and/or item nonresponse complete.

E. Survey Data Processing

1. Develop sponsor edit and output requirements.
2. Complete manual/machine specifications for processing HEGIS data.
3. Initiate survey data manual processing.
4. Complete manual data processing.
5. Complete machine processing and establish "clean data base."
6. Receive final tabular output.

F. Survey Data Analysis

1. Develop HEGIS survey schedule and analysis plans.
2. Conduct review of tabular output.
3. Complete analysis of survey institutional data.

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*Abbreviation:

GPO - Government Printing Office

G. Report Preparation and Dissemination

1. Prepare final draft of survey report.

2. Complete review of manuscript by NCES staff.

3. OPA* reviews and forwards manuscript to GPO.

4. GPO publishes and disseminates report.

To indicate the actual amount of time which might be required by these survey activities, Mrs. Gilford presented as an example the projected activity schedule for Earned Degrees and Other Formal Awards (see Figure 2). This schedule shows project planning underway in April of 1972, survey form mail-out in April of 1973, a response due date of August 1973, final cut-off of responses in February of 1974, and final report publication in July of 1974.

Mrs. Gilford pointed out that if the final cut-off date could be moved up to correspond more closely to the response due date, publication might take place as early as mid-February of 1974 (see the vertical arrows in Figure 2). The major difficulty encountered in such a procedure, she said, is the large number of responses that would be lost. To illustrate this, she presented three figures showing some of the institutions that had not responded to the 1970-71 Earned Degrees survey by its due date (see Figures 3, 4, and 5). Not only are there a large number of nonrespondent institutions; many of them have very large student populations as well. Figure 6 shows that fewer than 45 percent of institutions had responded by the due date and that these represented only about 40 percent of the total student enrollment. Mrs. Gilford emphasized that if the organizations represented at the Conference could succeed in achieving better institutional response, the result would be earlier availability of published data to the higher education community.

Regarding quick release of unedited data, Mrs. Gilford suggested that it would be possible to make microfiche copies of the unedited survey forms as they come to NCES from the institutions. These could then be furnished at cost to organizations wishing to do their own analyses or special studies. It was stressed, however, that these would be totally unedited data and that once the forms entered the editing process it would not be feasible to make copies of them after, say, a particular editing step.

*Abbreviation:

OPA - Office of Public Affairs

FIGURE 2

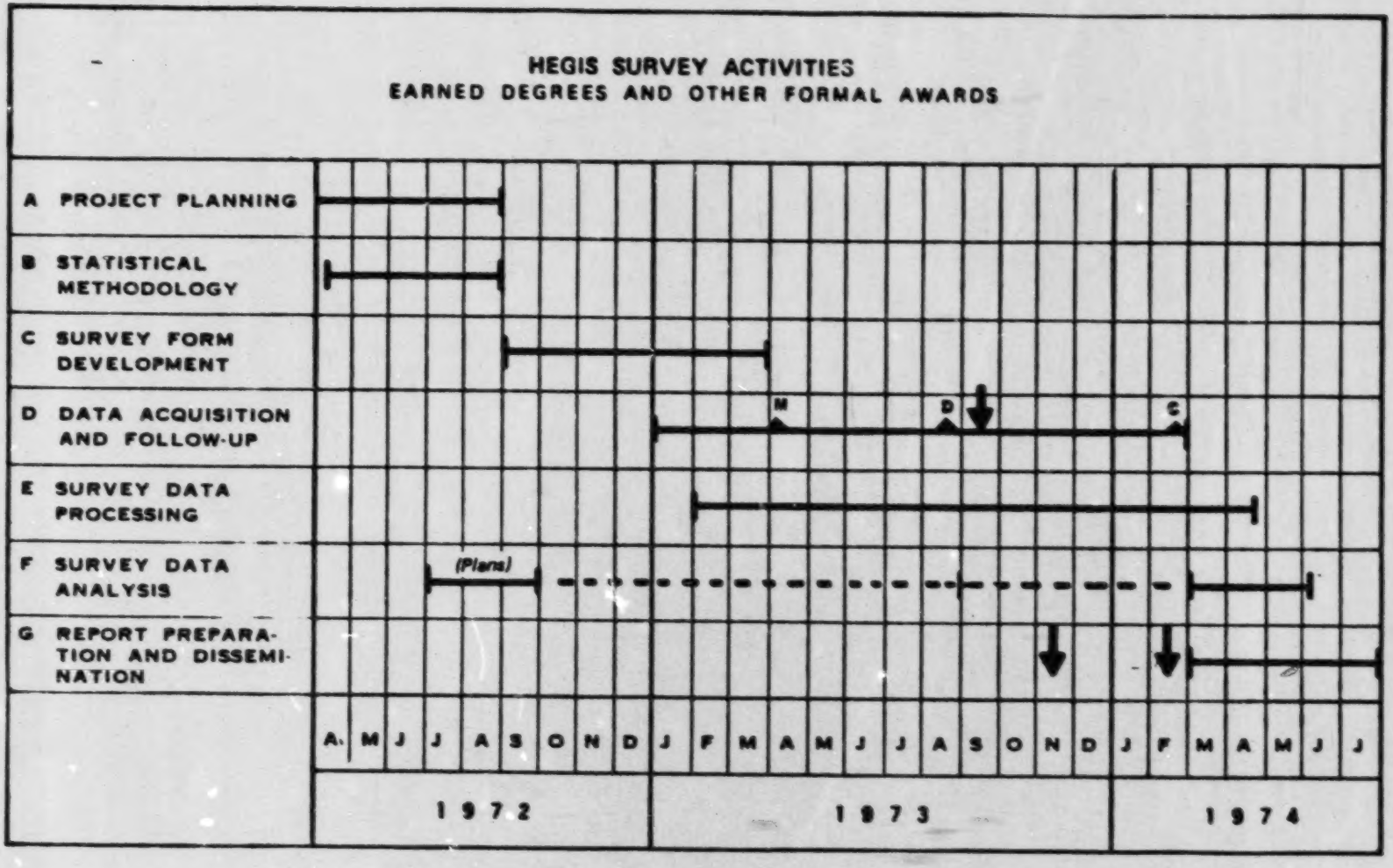
HEGIS SURVEY ACTIVITIES
EARNED DEGREES AND OTHER FORMAL AWARDS
A PROJECT PLANNING
B STATISTICAL METHODOLOGY
C SURVEY FORM DEVELOPMENT
D DATA ACQUISITION AND FOLLOW-UP
E SURVEY DATA PROCESSING
F SURVEY DATA ANALYSIS
G REPORT PREPARATION AND DISSEMINATION
M
D
C
(Plans)
A M J J A S O N D J F M A M J J A S O N D J F M A M J J
1972
1973
1974

FIGURE 3

EARNED DEGREES AND OTHER FORMAL AWARDS, 1970-71

Partial Listing of Non-Respondents at Due Date (August 15, 1971)

2-YEAR INSTITUTIONS

Public

City College of San Francisco
Fullerton Junior College
Miami-Dade Junior College
DesMoines Area CC, All Campuses
Mercer County Community College
Northern Virginia Community College

Private

Bryant-Stratton Commercial School
Puerto Rico Junior College
Alphonsus College
Southern Western College
Saint Gregory's College
Ferrum Junior College

FIGURE 4

EARNED DEGREES AND OTHER FORMAL AWARDS, 1970-71

Partial Listing of Non-Respondents at Due Date (August 15, 1971)

4-YEAR INSTITUTIONS

Public	Private
Georgia State University	New Hampshire College
University of Southern Mississippi	Pepperdine College
East Texas State University	Hamline University
San Diego State College	Ohio Northern University
SUNY State University, Buffalo, All Campuses	Oklahoma Christian College
Central Missouri State College	Reed College

FIGURE 5

EARNED DEGREES AND OTHER FORMAL AWARDS, 1970-71

Partial Listing of Non-Respondents at Due Date (August 15, 1971)

UNIVERSITIES

Public

University of Georgia
Temple University
University of Pittsburg, All Campuses
University of Minnesota, All Campuses
University of California, All Campuses
University of Mississippi, All Campuses

Private

Tulane University of Louisiana
Yale University
Columbia University
Stanford University
Carnegie-Mellon University
Drake University

FIGURE 6

EARNED DEGREES AND OTHER FORMAL AWARDS, 1970-71

Universe:	2565 Institutions
Due Date:	August 15, 1971
Response as of Due Date	1145 Institutions
Percentage of Universe Responding as of Due Date:	44.64
Opening Fall Enrollment for School Year 1970-71:	8,649,368
Percentage of Enrollment of Respondents as of Due Date:	39.84

In response to a question regarding the elimination of one or more editing steps in order to reduce the amount of data processing time, Mrs. Gilford expressed two concerns. First, NCES has a justifiably high reputation regarding the accuracy of its published data; any action that would substantially reduce this accuracy would be detrimental to the educational community in the long run. Secondly, a study is currently underway in NCES to determine the incremental increase in accuracy that results from each step in the editing process. The outcomes of this study will provide information for deciding whether the editing procedure can be modified without substantial loss of data integrity.

Mrs. Gilford also pointed out that the editing process is only one factor that contributes to the time delay in the publication of HEGIS data. Another factor, already discussed, is the response lag by reporting institutions. Other factors, over which NCES has little or no control, include the lack of an internal programming staff, the extensive bidding and outside contracting procedures for various survey activities, and the large number of interfaces required between NCES and other federal offices and agencies. Any effort to streamline the process by which HEGIS survey activities are carried out must therefore take account of these time delays which are essentially built into the system by virtue of certain federal requirements and financial constraints.

VI

ACTIVITIES OF NCES IN COLLECTING DATA ABOUT ADULT AND CONTINUING EDUCATION

Mr. Boyd Ladd, Assistant Director for Statistical Development in NCES, began his presentation by citing census figures indicating that in 1969 about 13 million persons were involved in some form of post-secondary education. The percentages for various types of activity were:

Full time in higher education institutions	25%*
Part time in higher education institutions	25
On-the-job training	25
Community organizations	13
Correspondence	8
Tutoring	6
Other	10

He then gave statistics on the kind and number of postsecondary institutions not in the Higher Education Directory (i.e., not included in HEGIS).

Flight schools	2,000
Cosmetology schools	1,000
Barber schools	400
Hospital schools	400
Business schools	1,000
Correspondence schools	200
Trade and vocational schools	4,000

This list includes both proprietary and nonprofit institutions.

*These total more than 100 percent since some individuals engage in more than one type of activity.

Early indications from an OE study are that about one-third of these hold some form of accreditation, about one-third are not accredited but are approved by the Veterans Administration for its educational programs, and about one-third fall into neither category.

The National Center for Educational Statistics has a continuing involvement in the area of adult and continuing education through its surveys of noncredit activities in institutions of higher education. In addition, NCES compiles directories of public and private accredited institutions which offer vocational education programs at the secondary and postsecondary level. Finally, as a result of growing interest in the types of organized learning which take place outside colleges and universities, NCES is actively engaged in an effort to identify the full range of institutions and organizations (including proprietary enterprises) engaged in postsecondary education, and to include all relevant sectors in its ongoing data collection and analysis activities.

APPENDIX A

IMPROVING THE TIMELINESS OF HEGIS DATA

NOTE

The material presented in this appendix was prepared by the conference staff as a major proposal to be brought before the HEGIS VIII Conference. Although it was not specifically considered by the conference itself (see the discussion in part III of Section Three of this report), the proposal has sparked significant interest in individual participants and others in the postsecondary education community.

IMPROVING THE TIMELINESS OF HEGIS DATA

The participants at the HEGIS VII Conference identified three different strategies by which more timely availability of HEGIS data might be achieved:

1. Changing the quality or the accuracy of the information.

2. Regulating the quantity of data collected.

3. Changing the mechanisms through which the data are collected and processed.

This discussion is addressed to the first two strategies affecting timeliness. The first part deals briefly with the subject of the quality or the accuracy of the data. The second deals extensively with the matter of regulating the quantity of data collected through the Higher Education General Information Survey. Finally, the role of data collection and reporting formats, as they affect timeliness, will also be considered briefly.

I. Specifying the Required Quality of the Data

Data quality considerations have an impact on timeliness in three ways. First, the propensity at the institutional level to wait until "final" or "exact" data are available before reporting creates significant delays. This is particularly true of financial data, which are seldom, if ever, reported until after audits are completed (usually in October following the end of the fiscal year). This reluctance is probably a reflection of a desire to avoid publication of two sets of data--an estimated set shortly after June 30 and an "official" set after the audit--rather than a concern about the quality of HEGIS data. Revisions made during the audit process are probably not large enough to have any significance for aggregated data at the national level. Any tardiness on financial data has a significant impact on the use of HEGIS data in any interrelated way since these financial data are not received until almost a year after the first data of other types are received for that comparable time period. Delays at the institutional level with regard to other types of data are less of a concern.

Second, the extent to which data are reviewed and edited after receipt by NCES can greatly affect the rapidity with which the data are processed and published. The two extremes of editing are (1) accepting all data as being correct when they are received and (2) checking all entries, subtotals, and totals after each processing step, identifying all potential errors, and contacting the pertinent institution to determine what corrective action should be taken. In between these extremes lie other alternatives. For example, a minimal edit would require a quick perusal of all forms to identify any situations in which the data submitted appear grossly in error (e.g., where doctoral degrees are indicated as having been awarded by an institution which is ostensibly a community college). As another alternative, one round of fairly careful editing can be done with data being accepted for use after that round.

At the present time, there are no generally available statistics which indicate the incremental accuracy achieved as a result of each of the existing editing steps undertaken by NCES. That is, the amount of the change in the final figures which is attributable to editing corrections is currently unknown.

Finally, the desire on the part of NCES to have "reasonably" complete returns on any survey schedule before any data are published affects timeliness. Here again there are extremes and intermediate alternatives. At one extreme, NCES could publish only those data received on or before the due date indicated on the schedule. At the other extreme, publication could be delayed until data were received from all institutions in the survey population. As one intermediate alternative it would be

possible to publish incomplete returns shortly after the due date for data submission and to publish more comprehensive and complete data when returns are more nearly complete. As another alternative, it would be possible to publish a combination of current data for those institutions responding on time and the previous year's data for nonrespondents. As a final alternative, it is possible to statistically impute the full population data from partial returns. Since the confidence with which such imputation can be made decreases as the rate of return decreases, there is need to establish confidence limits. That is, must the data be 99, or 95, or 90 percent accurate?

The question posed in the previous sentence summarizes the basic issue of the quality aspects of timeliness. The real question is, "Just how good must these data be for use in the ways in which they will most often be used?" A corollary question is "How good are the data that are currently being collected through HEGIS?" The latter question falls within the realm of the statistician, but the first is the prerogative of the data user. For the data user, must the numbers be 99 percent accurate or is "fairly accurate" good enough?

A general understanding of the users' requirements for accuracy is basic to discussions of how much information can be collected and processed through HEGIS; that is, there is a fairly strong link between quality and quantity. If highly accurate data are required, significant resources must be devoted to editing, checking, and possibly technical assistance to the institutions. Similarly, a requirement for great accuracy might preclude the collection of data which institutions cannot furnish at that level of accuracy. It is thus within the framework of quality considerations that the discussions regarding the amounts and types of data to be collected must take place.

II. Regulating the Quantity of Data Collected

There are several dimensions to the problem of regulating the quantity of data collected through HEGIS. First, limitations are imposed by virtue of the nature of HEGIS itself. HEGIS is a device for acquiring data from but one of the many sources of data about post-secondary education, the institutions. As a further, self-imposed constraint, HEGIS is now directed toward only the accredited, non-profit institutions of higher education. Thus, the amount of data collected is restricted by restricting the population surveyed. There is currently a good deal of sentiment for lifting this restriction and broadening HEGIS into a survey of all of postsecondary education. At the present time, however, such a step is probably not feasible.

Second, the amount of data which can be collected through HEGIS is restricted by the state-of-the-art. That is, only those data which are within the institution's capability to provide can be collected through the Higher Education General Information Survey. Inasmuch as this capability varies in the extreme from institution to institution, the achievement of an acceptable response rate to HEGIS requires that the data collected be restricted to those which can be provided by an institution with relatively unsophisticated data systems. This restriction does not require, however, that HEGIS be constrained to collecting only that information routinely included in the data systems of most institutions. Rather, the requirement is that HEGIS request those data which institutions can "reasonably" be expected to provide--routinely or otherwise. The consideration of what is "reasonable" must be a constant factor in the deliberations of the conference.

The restrictions on the survey populations and limitations on the capabilities of institutions to provide data serve only to establish the extreme outer bounds of the Higher Education General Information Survey. Within these bounds there is an extremely large amount of data which could potentially be collected. Thus there is a need to add additional restrictions in order to reduce the amount of data to manageable proportions. Two factors can be brought into

play to effect this reduction. First, data can be aggregated--hopefully in such a way as to yield most of the necessary information without the encumbrances of an undue amount of detail. Second, priorities can be established so that only those data deemed most important are collected. Choices with regard to these factors are both difficult and critical. In order to present a background against which these choices may be made, the balance of this section is devoted to a general discussion of the different types of information which might be gathered through HEGIS. The material is not presented in any priority order--the only intent at this point is to describe as thoroughly as possible the full range of possibilities. It should be noted, however, that implicit in this discussion is a proposal regarding level of detail of the data collected.* Also, it should be noted that the material in this section is general in nature and is by no means technically specific. The intent is to present the material in such a way that general guidance as to level of detail and priorities can be provided by the conference participants. The technical task of developing specific definitions for the various data categories, etc., is a subsequent step in the process.

There are three basic categories of data which are (and can be) gathered through the Higher Education General Information Survey.

1. Those data required to operate the data collection and reporting mechanism.

*Note: Preliminary calculations indicate that the number of data cells in the tables laid out in this section is approximately 15 - 20% as large as the number of data cells required by the HEGIS VII forms. A good deal of this reduction is a reflection of the fact that less detail has been provided. As a caution, however, it should be noted that the average institution probably would have to fill in a smaller proportion of the cells in HEGIS VII than in this proposal for HEGIS VIII. Thus, the savings to the institution are not as extreme as initially indicated.

2. A common core of census data to be collected annually.

3. Those data required at either regular or irregular intervals for the conduct of special studies directed at the evaluation of federal programs or at specific state or federal level decisions.

Each of these categories is described and discussed in detail below.

A. Data Required by the Data Collection Mechanism

There are two specific types of information required for the primary purpose of operating the data collection and reporting mechanism. These are:

- Those data necessary to uniquely identify the responding unit (institution, campus, etc.).

- Those data required to organize all other data for analytic and reporting purposes (i.e., the data which establish the "control breaks").

The first type of data is that which is necessary to insure that the right information gets associated with the right institution. Historically, HEGIS has been composed of several more-or-less independent schedules. These schedules have had different due dates and are typically completed by different individuals at the campus level. Thus there is a need to establish identifiers for the various reporting units which will insure that the data can be properly collated when received by NCES. The most persistent problems in this area are the result of inconsistent treatment of the various entities within systems of institutions or within institutions having branch campuses. Some multicampus institutions report each campus (and the central office) separately while others submit one set of data for the system. At the extreme it is possible to get (from a single system) individual campus data on some schedules and combined data on others. In order to achieve anything approaching comparability of the data collected through HEGIS it will be necessary to establish firmer ground rules in this regard. *It is proposed that the most desirable situation is that in which each of the campuses and/or branch campuses is treated as a separate reporting unit and data are collected for each separately.*

The minimum data required for identification of a reporting unit are:

(1) Campus name

(2) FICE Code

(3) Organizational relationship or campus

a. Single campus institution

b. A branch campus

c. A "main" campus having one or more branch campuses

d. An administratively equal campus within a multi-campus institution or system

(4) Address of the reporting unit

The above data are required to insure that the information gets into the system correctly. An additional set of data is required to identify those institutions which will be grouped together when data are compiled for publication by NCES. It should be specifically noted that these data are being discussed only for purposes of identifying means of grouping data for publication purposes--e.g., data for all public institutions having enrollments greater than 20,000. The particulars of the data required to characterize the institution are discussed later in this section. In previous years the following variables have been employed for this purpose:

(1) Type of control--public vs. private

(2) Size of the reporting unit--number of headcount students enrolled

(3) Geographic location--by state

(4) Levels of programs offered--basically two-year, four-year, and graduate

With regard to the "type of control" variable, the reported data would probably be more useful if private institutions were to be subcategorized into (a) independent institutions and (b) religiously controlled institutions. While such distinctions would be useful, there is a decreasing ability to distinguish between these two groups of institutions. Thus, the results of any attempt to categorize institutions in this way would probably be inconsistent.

With regard to the "size" variable, it is suggested that a categorization of institutions by FTE students rather than head-count students would be more revealing.

The "geographic location" variable could take on several dimensions. For example, geographic location could be described in terms of regions or Standard Metropolitan Statistical Areas or in terms of an

urban-rural distinction rather than in terms of states. For general use of published data, however, it is recommended that the current state-by-state distinction be retained.

While there is a definite need to group those institutions which are programmatically more alike, there is little assurance that information on level of programs offered is appropriate for this purpose. For example, using this criterion for classifying institutions, it is not possible to segregate universities with a major commitment to graduate education from state colleges with a minimal level of graduate activity. Rather than using levels of programs offered, it is suggested that a criterion based either on numbers and types of degrees granted or on student credit hours produced (by further categorized discipline and course level) would be more useful.

In summary, the following data are proposed as the bases for identifying those institutions which will be grouped together when data are compiled for publication by NCES.

(1) Type of Control - Public/private

(2) Size - FTE students, with possible categories being:

a. 500 and below

b. 501 - 999

c. 1,000 - 2,499

d. 2,500 - 4,999

e. 5,000 - 9,999

f. 10,000 and above

(3) Geographic Location - by state

(4) Programmatic Distinctions - as determined by either

a. Numbers and types of degrees awarded (or, more precisely, programs completed), or

b. Student credit hours produced--categorized by disciplines and course levels.

Either of these alternatives would require the collection of basic data and the development of a set of decision rules to apply to these data in order to arrive at a limited number of categories. Following are the types of data required to make programmatic distinctions on these bases.

TABLE 1

DEGREES AWARDED (PROGRAMS COMPLETED)

DEGREE PROGRAMS*	Certificates and Diplomas	Associate Degrees	Bachelor's Degrees	Master's Degrees	Doctor's Degrees	First Professional Degrees
Health Professions and Services						
Agriculture and Natural Science Technologies						
Engineering and Engineering Technologies						
Sciences						
Social Sciences						
Professions						
Humanities						
Education						
Fine Arts						
Interdisciplinary Studies						

*The clusters of degree programs and instructional disciplines used in this and succeeding tables are intended only as an example of the level of detail which might be employed in HEGIS reporting. The question of the appropriate level of detail is addressed more directly later in this section.

TABLE 2

STUDENT CREDIT HOURS PRODUCED

Instructional Disciplines	Course Levels		
	Lower Division	Upper Division	Graduate
Health Professions and Services			
Agriculture and Natural Science Technologies			
Engineering and Engineering Technologies			
Sciences			
Social Sciences			
Professions			
Humanities			
Education			
Fine Arts			
Interdisciplinary Studies			

By developing decision rules and applying them to the data contained in these tables it is believed possible to categorize institutions, for example:

a. Comprehensive Community Colleges

b. Community Colleges with Academic Preparation Focus

c. Community Colleges with Vocational-Technical Focus

d. Liberal Arts Institutions

e. Institutions Specializing in Teacher Education

f. Specialized Baccalaureate Institutions

g. Universities

h. Professional Schools

Obviously, many other institutional characteristics could be substituted for, or added to, the items listed above. Examples of other characteristics which might be considered are:

(1) Location--urban/rural

(2) Size of budget

(3) Research/nonresearch orientation

(4) Racial composition of student body

(5) Institutional maturity--mature/developing

One of the outcomes of the conference should be a recommendation regarding that set of variables most important for identifying those institutions which will be grouped together when data are compiled for publication by NCES. If programmatic distinctions are identified as an important characteristic for this purpose, general guidance as to the most appropriate basis for making these distinctions will be required.

B. The Common Core of Census Data to be Collected Annually

This category of information is composed of those data which are required on an annual, continuing basis and which serve to describe the individual institutions specifically and the "state" of post-secondary education in general. This core of data is characterized by:

- A requirement that the data be provided regularly (annually).

- A requirement that the data set be sufficiently stable to allow trend analysis of critical elements.

- A requirement that the data set be relatively complete--that is, the data should present a well-rounded picture.

- A requirement that the elements be consistent and interrelatable insofar as is necessary.

- A requirement that the data be presented in no greater detail than is absolutely necessary.

Various types of information which meet these criteria can be collected from most institutions. These types of data can be categorized as follows:

(1) Those data which describe the institution in very general terms--i.e., institutional characteristics.

(2) Those data which describe the operations and administrative processes of the institution.

(3) Those data which describe the outputs of the institution.

(4) Those data which describe the characteristics of the student body.

(5) Those data which describe the flows of students into and out of the institution.

(6) Those data which describe the institutional environment--primarily faculty characteristics.

The degree to which institutions can provide such data varies by category. For example, they can provide relatively complete information on institutional characteristics and processes, less complete data on student characteristics and the institutional environment, and very incomplete information on educational outcomes. Proposals for data to be collected in each of these categories are presented below. Among other things, these proposals attempt to reflect the ability of institutions to provide the required data. A primary objective of the conference is to revise the suggestions as deemed appropriate and to establish priorities in the event that, by

including all of these areas, plus additional data requirements identified by federal agencies, the total data requirements fall outside the boundaries established by NCES.

Note: Inasmuch as one of the requirements of the basic core of data is that it be consistent and interrelatable, the various categories of data should all be collected for the same time period, for example the 12-month period beginning July 1 and ending June 30. This need not mean, however, that all data must be collected at the same time. Some data are not available until after the end of the period (e.g., financial data). Other data are available as of a particular census date prior to the end of the period (e.g., facilities data). It does mean, however, that when data of various kinds are combined for purposes of either analysis or reporting, care must be taken to insure that the data are for the same time period.

(1) Institutional Characteristics Data

Institutional characteristics data have two primary uses. First and foremost, these data are used in the production of the annual Higher Education Directory. Second, they provide a mechanism for more precisely segregating institutions having similar characteristics. This capability is especially important to those individuals using HEGIS data for research and analytic purposes. Among the data which could be included in this category are:

(a) Institutional Name (Name of reporting unit)

(b) City, County, State, Zip Code

(c) Congressional District

(d) Telephone Number

(e) Size (Headcount number of students)

(f) Coed, All male, All female

(g) Type of Control - Several categories of both public and private institutions

(h) Predominant Calendar System

(i) Highest Degree Offered

(j) Types of Programs Offered

(k) Accredited by _____?

(l) Names and Titles of Administrative Officers

(m) Price of Attending Institution (Basic Student Charges)
Undergraduate tuition and fees
In-state/Out-of-state
Graduate tuition and fees
In-state/Out-of-state
Room charge for academic year
Board charge for academic year

(n) Geographic Location - Urban/Rural

(o) Residential/Commuter Campus - Number of students housed in institution-owned residential facilities.

(2) Administrative Processes

The data proposed to describe an institution's administrative processes and the allocation of resources within the institution are of two levels of detail. First, it is proposed that highly aggregated data regarding personnel, facilities, revenues, and expenditures be reported for all the major functional areas of the institution. Second, it is proposed that slightly more detailed (but still highly aggregated) data be reported for the instructional activities of the institution. The specifics of this proposal are presented in the tables that follow.

TABLE 3

PERSONNEL RESOURCES*

	Exec.-Mgt.	Faculty	Other Prof.	Service & Trades
Instruction				
General Academic Instruction				
Occ. & Voc. Inst.				
Extension Inst.				
Organized Research				
Public Service				
Library				
Hospitals				
Other Academic Support				
Student Services				
Auxiliary Services				
Plant Maintenance Operation				
Other Administrative Support				

*Entries to be in terms of FTE employees assigned to each function.

TABLE 4

FACILITIES RESOURCES*

	Classroom	Lab Except Research Lab	Research Lab	Office	Study	Special Use	General Use	Supporting	Health Care	Residential	Totals
Instruction											
General Academic Instruction											
Occ. & Voc. Inst.											
Extension Inst.											
Organized Research											
Public Service											
Library											
Hospitals											
Other Academic Support											
Student Services											
Auxiliary Services											
Plant Maintenance Operation											
Other Administrative Support											
Totals											

*Entries in terms of Net Assignable Square Feet assigned to each function.

TABLE 5

Financial Resources

Sources of Unrestricted Revenues

I.	Tuition and Fees	_____
II.	External Support	_____
	A. Government	
	1. Local	_____
	2. State	_____
	3. Federal	_____
	B. Private	_____
III.	Revenues from Investments	
	A. Endowment	
	1. Income	_____
	2. Liquidation of Principal	_____
	B. Other	
	1. Income	_____
	2. Liquidation of Principal	_____
IV.	Other Sources	
	A. Sales and Services of Educational Departments	_____
	B. Organized Activities Related to Educational Departments	_____
	C. Auxiliary Enterprises	_____
	D. All Other	_____
	Total Unrestricted Income	_____

TABLE 6

FINANCIAL RESOURCES

Source / Application	All Unrestricted Funds	Restricted Funds													Total Exp.
		Tuition & Fees	External Support				Investment Revenue				Other Sources				
			Government			Private	Endowment		Other		Sales & Service	Org. Act.	Aux. Ent.	Other	
			Loc.	State	Fed.		Income	Liq.	Income	Liq.					
Operating Expenditures															
Instruction															
General Academic Instruction															
Occ. & Voc. Inst.															
Extension Inst.															
Organized Research															
Public Service															
Library															
Hospitals															
Other Academic Support															
Student Services															
Auxiliary Services															
Plant Maintenance & Operation															
Other Administrative Support															
Capital Expenditures															
Land & Improvements															
Buildings															
Major Equipment															
Investments															
Institutional Debt															
Interest															
Retirement of Prin.															
Student Aid															
Transfers to Other Agencies															

In addition to these data on sources of revenue and categories of expenditure, information on the assets and liabilities of the institution is required. These data are particularly useful over time.

TABLE 7

Assets:

Cash

Investments, at cost and market value

Restricted

Unrestricted

Accounts and Notes Receivable, less allowance

Inventories

Land, Buildings, Improvements, and Equipment

Other Assets, e.g., prepaid expenses, deferred charges, etc.

Total

Liabilities and Fund Balances:

Accounts and Notes Payable - Short Term

Long-term Debt, including notes, bonds, mortgages, etc.

Other Liabilities, e.g., deferred revenues, provision for encumbrances, deposits, etc.

Total

Fund Balances

In addition to the above data, which pertain to the institution as a whole, it is proposed that the following information concerning the resources devoted to instructional activities (only) and credit hours produced be collected.

TABLE 8

INSTRUCTIONAL RESOURCES*

		FTE Faculty FTE Other Prof. FTE Other Employees	Total Number of Student Credit Hours Produced	Total Direct Expenditures	Total Net Assignable Square Feet
DEGREE PROGRAMS	Health Professions and Services				
	Agriculture and Natural Science Technologies				
	Engineering and Engineering Technologies				
	Sciences				
	Social Sciences				
	Professions				
	Humanities				
	Education				
	Fine Arts				
	Interdisciplinary Studies				

*One set of data in this form should be collected for academic instruction programs. A second set in this form should be collected for vocational-technical education programs.

At this point it is necessary to raise a very specific question regarding level of detail of the data collected. On the previous table, and several of those preceding it, ten discipline groups are indicated as row headings. These groups are derived by combining the HEGIS discipline categories as indicated on the following page. There are arguments both for and against combining these categories. Those in favor of such combination argue that it serves to reduce the amount of data to be collected and analyzed without obscuring the relevant factors, especially when used at the state and national levels. Those against this form of aggregation argue that important information is lost in the process.

The question to be addressed at the conference is whether or not such aggregation is appropriate for data collected through HEGIS. It is not intended that the specifics of how best to aggregate be addressed.

SUGGESTED HEGIS CLUSTERS		CURRENT HEGIS DISCIPLINE CATEGORIES	
CODE	TITLE	CODE	TITLE
1.	Health Professions and Services	1200	Health Professions
		5200	Health Services and Paramedical Technologies
2.	Agriculture and Natural Science Technologies	0100	Agriculture and Natural Resources
		5400	Natural Science Technologies
3.	Engineering and Technologies	0200	Architecture and Environmental Design
		0900	Engineering
		5300	Mechanical and Engineering Technologies
4.	Sciences	0400	Biological Sciences
		0700	Computer and Information Science
		1700	Mathematics
		1900	Physical Sciences
		5100	Data Processing Technologies
5.	Social Sciences	0300	Area Studies
		2000	Psychology
		2100	Public Affairs
		2200	Social Sciences
		5500	Public Service Related Technologies
6.	Professions	0500	Business and Management
		0600	Communications
		1300	Home Economics
		1400	Law
		1600	Library Science
		1800	Military Sciences
		5000	Business and Commerce Technologies
7.	Humanities	1100	Foreign Languages
		1500	Letters
		2300	Theology
8.	Education	0800	Education
9.	Fine Arts	1000	Fine and Applied Arts
10.	Interdisciplinary Studies	4900	Interdisciplinary Studies

(3) Instructional Outcomes

Of all the data pertinent to decision making about higher education, data about the outcomes of the educational process are probably the most important. Unfortunately, it is this category of information which institutions are least capable of supplying. This is true for a combination of reasons. First, many of the more relevant outcomes data are not available from institutional sources; they are, instead, available only from employers, students, and other such diverse sources. Second, where certain outcomes information is gathered by institutions, it is gathered by such diverse means as to preclude obtaining meaningful information in any national survey. For example, while certain tests are administered to program completers by many institutions, there is no uniformity in this practice. Even if there were uniformity in this practice, there would be better sources for such information, namely the organization which prepared the test. Finally, the data needed for most outcomes indicators are beyond the capabilities of many institutions to collect and report.

For these reasons, and others, it appears that only degrees awarded (or student credit hours produced) represent a feasible indicator of outcomes at this point in time.

TABLE 9

CERTIFICATES AND DEGREES GRANTED

DEGREE PROGRAMS	Less Than Associate Degree	Associate Degrees	Bachelor's Degrees	Master's Degrees	Doctor's Degrees	First Professional Degrees
Health Professions and Services						
Agriculture and Natural Science Technologies						
Engineering and Engineering Technologies						
Sciences						
Social Sciences						
Professions						
Humanities						
Education						
Fine Arts						
Interdisciplinary Studies						

Note: Provide data for men and women separately.

(4) Student Characteristics

As indicated previously, there are some student characteristics data that can be obtained through a survey of institutions and there are others which must be obtained from other sources--most particularly from students or potential students. Among those data which cannot be readily obtained from institutional sources are such critical elements as:

(a) Abilities

(b) Motivation

(c) Socioeconomic status

(d) Career objectives

Conversely, there are numerous student characteristics which can be obtained from institutional sources. Among the more useful such data are:

(a) Sex

(b) Race

(c) Educational Objectives (As determined by the types of programs in which students are enrolled)

(d) Age

(e) Full-time/Part-time status

TABLE 10

STUDENT CHARACTERISTICS DATA*

	Men	Women	Total
Race			
Oriental			
American Indian			
Negro			
Spanish-Surnamed American			
All Other			
Age			
--			
--			
--			
--			
Educational Objectives			
General Academic			
Vocational-Technical			
Professional			
Graduate			
Attendance Status			
Full-time			
Part-time			
Total			

*Entries in terms of headcount number of students.

(5) Student Flow Data

Student flow data can be described as those data which provide information on students' movements into and out of the education system. An additional element of this description is the number of students in the system at any one time. There are two levels of detail which are appropriate when considering questions of student flow. At one level of detail, data are required simply to provide answers to the questions: "How many students are enrolled in college this fall?" and "How many new students are in college this fall?" Because the value of these data lies in their currency, there is undoubtedly merit in using a postcard survey to obtain a minimum amount of early enrollment data (as has been the practice of NCES in collecting Opening Fall Enrollment Statistics). Such a minimum set of data might be as follows.

TABLE 11
FALL ENROLLMENT

	Men		Women		TOTAL
	FT	PT	FT	PT	FTE
Total Undergrads					
First-time Undergrad Students					
Total Graduates					
First-time Grad Students					

In addition, there is need for more detailed data on total enrollments, on students entering the system, and on students leaving the system. While data on total enrollments can be obtained in great detail, the collection of detailed information on either students entering the institution or students leaving the institution is much more difficult. In short, institutional surveys are not particularly well equipped for the collection of data on the dynamics of student flow. An attempt at developing a rudimentary mechanism for collecting such information is presented below. It is not particularly satisfactory, but it may be all that is possible.

TABLE 12

INSTITUTIONAL STUDENT FLOW

	Academic				Vocational-Technical
	Lower Div.	Upper Div.	Grad.	First Prof.	
Total Headcount Enrollment					
Men					
Full-time					
Part-time					
Women					
Full-time					
Part-time					
Total Headcount					
Total FTE Enrollment					
First-time Admissions to the Institution					
First-time College					
Transfers					
In-State					
Out-of-State					
Foreign					
Number Not Returning from Previous Fall Term					
Program Completers					
Program Noncompleters					

(6) The Institutional Environment

Included in this category are those data which serve to add descriptive information about the "character" of the institution. Here again, there are limitations to the amount of this type of data which can currently be collected through use of a total population survey such as HEGIS. In this case, however, the limitations are created more by an inability to respond to data requests than by the situation in which the institution is the inappropriate source of the data. For example, data on faculty time devoted to a variety of different activities (e.g., student counseling) would be most useful, but the reporting of such data is beyond the state of the art for too many institutions.

While many institutional environment data cannot be gathered for a variety of reasons, it should be noted that a good bit of such information can be derived from data identified in previous sections. For example, the racial composition of the student body gives an indication of the institutional environment. Also, amounts of resources available per FTE student (e.g., amounts of certain types of facilities per FTE student or FTE instructional faculty per FTE student) also provide insights into the institutional environment.

Of the most revealing data on the institutional environment, those which are not available as a derivative of other data are those dealing with faculty characteristics. The faculty characteristics data which can quite readily be collected through HEGIS are:

(a) Sex

(b) Highest degree awarded

(c) Race

(d) Rank

(e) Appointment Status

(f) Average Salaries

TABLE 13

FACULTY CHARACTERISTICS DATA*

	Men		Women		Total	
	Number	Average Salary	Number	Average Salary	Number	Average Salary
Highest Degree Awarded						
No Postsecondary Degree						
Associate Degree						
Bachelor's Degree						
Master's Degree						
Doctor's Degree						
Other Terminal Degree						
Race						
Oriental						
American Indian						
Negro						
Spanish-surnamed American						
All Other						
Rank						
Instructor or Equivalent						
Assistant Professor or Equivalent						
Associate Professor or Equivalent						
Professor or Equivalent						
Appointment Status						
Full-time						
Part-time						

*Entries in terms of headcount faculty.

C. Data Required for the Conduct of Special Studies

The previous section dealt at length with those data appropriate for inclusion in HEGIS on an annual basis. There are, however, other data which may be equally important at a particular point in time, but which do not qualify for inclusion in the basic core of data. Special studies are typically concerned with collecting data that are:

- Required on a nonrecurring or intermittent basis.
- Intended to provide more detail about a particular subject than is available through the basic core.
- Required to identify institutions having particular characteristics or engaging in particular activities.
- Not interrelatable with the basic core of data because of timing or other considerations.
- Required for evaluation of a specific federal program at a given point in time.
- Relevant to a discussion of issues bearing on probable national level decisions.

By the very nature of such special studies, it is impossible to create a definitive list of data which might be collected under this heading. At best an illustrative list can be presented. Thus, the following list of the types of data which could be collected in special studies is intended to be indicative only:

(1) Detailed data on faculty and administrative salaries.

(2) Detailed data on degrees awarded (i.e., data for each HEGIS discipline speciality).

(3) Detailed data on students enrolled for advanced degrees.

(4) Detailed data on the availability of certain academic support resources (e.g., library holdings, computer facilities).

(5) Detailed (state-by-state) student migration data.

(6) Detailed data on academic training of faculty.

(7) Data which identify institutions having certain numbers of particular types of students (postdoctoral, handicapped, majors in unique programs, etc.) so that a survey population may be identified for a particular in-depth study.

(8) Data which identify institutions using particular types of educational technology, again so that a survey population may be identified for an in-depth study.

(9) Data on the types and amounts of student aid disbursed by institutions.

A list such as this could be extremely long. One of the purposes of the conference is to identify what, if any, special studies should be implemented in HEGIS VIII and to assign relative priorities as necessary.

III. Formats for Collecting and Reporting HEGIS Data

As a footnote to the discussion of timeliness, it should be noted that the design of the data collection and reporting formats can play a major role in determining whether or not data are collected and reported in a timely fashion. For example, if a data collection form were designed in such a way that it contained more than one general type of information (e.g., the instructional resources format in Table 8 which contains data on personnel, facilities, finances, etc.), then the form could not be submitted by the institution until the last of the various types of data was available. This creates a situation in which none of the data become available until all personnel data are collected together, facilities data together, etc. [For this reason several of the formats used in the previous discussion are inappropriate as actual data collection forms.]

The same arguments that apply to the collection of the data also apply to the publication of the data. That is, unless data of a single type are published in a given document, publication must be held up until all types of data are ready for publication. This creates something of a dilemma. Given that the emphasis has been on timeliness, there seems little rationale for delaying publication of one type of data because a second type is not available. On the other hand, some of the data lose much of their meaning if they are divorced from their larger context. For example instructional faculty data lose much of their usefulness when separated from data on student credit hours.

As a result of this situation it appears that it would be useful to increase the emphasis on publication of two basic types of document--one which presents a single type of data and another which organizes multiple types of data in a way which makes them more generally and readily useful.

APPENDIX B

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